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Listing of the Claims

1. (Currently Amended) Method for producing a data stream of code words of
5 variable lengths which are divided up into a plurality of sets of code words,
~~wherein the code words of variable lengths represent encoded information~~
symbols a raster having raster points existing for the data stream, two adjacent
raster points defining one segment, and the raster comprising a plurality of
segments, the method including the following steps:

10 encoding an audio signal generating the code words of variable lengths, the code
words of variable lengths representing the audio signal;

15 a1) writing the code words of the first set such that starts of the code words
are at raster points of different segments;

20 b1) in case the respective code word fits in the segment, writing each code
word of the second set into a segment which is assigned to each individual
code word pursuant to a predetermined assignment rule, wherein each
code word of the second set is assigned a different segment pursuant to
the predetermined assignment rule;

25 b2) in case only a part of the respective code word fits in the assigned
segment or in case the assigned segment is full, writing the part of the
respective code word of the second set into the assigned segment and
storing the remainder of the code word or, in case the assigned segment is
full storing the entire code word which is assigned the full segment;

30 b3) writing the stored remainder or the stored entire code word, which did not
fit in the respective segments in steps b1), b2), into an area of the raster
which is not written onto after steps b1) and b2), pursuant to a second
predetermined regulation, until all code words of the second set have been
written into the raster.

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2. (Original) Method as claimed in claim 1, in which the code words of the first set are present in an order, wherein these are written into adjacent segments in accordance with their order.
- 5 3. (Original) Method as claimed in claim 1, in which, in case of a code word of the first set which is longer than a segment, the remainder of the code words is written into an area of the raster which is not written onto after step a1), pursuant to a first predetermined regulation, until all code words of the first set have been written into the raster, the first predetermined regulation being as follows:
- 10 i) writing at least a part of the remainder of a code word of the first set into the segment following the segment in which the starting section of the code word is present, in case there is room, in the segment, for at least part of the remainder; and
- 15 ii) conducting step (i) for remainders of all further code words of the first set in case such code words are present; and
- 20 iii) conducting steps (i), (ii), wherein one proceeds by one segment for each remainder until all code words of the first set have been written into the data stream.
- 25 4. (Original) Method as claimed by claim 1, in which the code words of the second set are present in an order and the predetermined assignment rule assigns the first code word of the second set to that segment in which the start of the first code word of the first set is present, assigns the second code word of the second set to that segment in which the start of the second code word of the first set is present and, in case existent, assigns each further code word of the first set that segment in which the start of the corresponding code word of the first set is present.
- 30 5. (Original) Method as claimed by claim 1, in which the second predetermined regulation is equal to the first predetermined regulation.
- 35 6. (Original) Method as claimed by claim 1, in which, pursuant to the first or second predetermined regulation, a code word of the corresponding set which does not

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entirely fit into the assigned segment falls in three or more parts in case there is only so much room in the segments following the assigned segment that, again, a remainder remains.

- 5 7. (Original) Method as claimed by claim 1, in which the raster points are arranged equally spaced apart, whereby equally long segments, except for the final segment, result, wherein the equally long segments are longer than or as long as the longest code word of the first set, such that each code word of the first set fits in the corresponding segment.
- 10 8. (Original) Method as claimed by claim 1, in which the code words of the first set are written in a first writing direction starting from the first raster points of the segments, respectively, and in which the code words of the second set are written in a second writing direction opposite to the first writing direction, starting from the second raster points of the segments, respectively.
- 15 9. (Original) Method as claimed in claim 8, in which a third set of code words is present, wherein the third code words are, again, written into the raster in the first writing direction after all code words of the second set have been written into the raster.
- 20 10. (Original) Method as claimed by claim 1, in which the code words are Huffman code words.
- 25 11. (Original) Method as claimed by claim 1, in which code words of the first set represent more significant Information symbols than code words of the second set or of further sets.
- 30 12. (Original) Method as claimed in claim 11, in which the information symbols are spectral values of an audio signal and code words of the first set are spectral values significant from a psycho-acoustic point of view, which are to be protected from any error propagation due to a transmission error in the data stream.
- 35 13. (Original) Method as claimed by claim 1, in which the length of the data stream produced is equal to the sum of the lengths of the code words of variable lengths.

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14. (Original) Method as claimed by claim 1, in which more than two sets of code words are present and which further comprises the following step:

conducting steps b1), b2) and b3) for the code words of the further sets of code words, wherein the second predetermined regulation corresponds to the second predetermined regulation of step b2) and wherein the predetermined assignment rule corresponds to the predetermined assignment rule of step b1).

15. (Currently Amended) Method for reading a data stream of code words of variable lengths, the code words of variable lengths representing an encoded audio signal, wherein the data stream comprises code words of a plurality of sets of code words, ~~wherein the code words of variable lengths represent encoded information symbols,~~ wherein a raster is specified for the data stream, which comprises raster points in which two adjacent raster points define a segment, wherein the data stream comprises at least two segments, which method includes the following steps:

- a) extracting the code words of the first set from the data stream by the following individual steps:

a1) for each segment, jumping to a raster point and reading a code word starting there;

- b) extracting the code words of the second set of code words from the data stream remaining after step (a) by the following individual steps:

b1) for each remaining segment, jumping to a raster point of the segment on the basis of a predetermined assignment rule which was used when producing the data stream, and reading the code word starting there, in order to obtain the code words of the second set;

b2) in case a code word of the second set is not finished at the end of a corresponding segment, storing the read section of the code word of the second set;

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b3) determining the remainder of the code word or the code word not present at a raster point, on the basis of a second predetermined regulation which was used when producing the data stream; and

5 decoding the code words of variable lengths to obtain a decoded audio signal.

16. (Original) Method as claimed in claim 15, in which the data stream comprises more than two sets of code words, which method further includes the following step:

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extracting the code words of the third set by repeating steps b1), b2) and b3), wherein the second predetermined regulation is equal to the second predetermined regulation of step b3) and wherein the assignment rule is equal to the assignment rule of step b1).

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17. (Original) Method as claimed in claim 15, in which the assignment rule, which was used when producing the data stream, assigns a first code word of the second set to a segment in which the first code word of the first set starts, wherein, in step b1), one jumps to the first raster point in order to obtain the first code word of the second set, one jumps to the second raster point in order to obtain the second code word of the second set, etc., wherein, in case no or only part of a code word of the second set starts at the first raster point, one initially reads starting from all raster points, before a missing code word or a missing part of a code word is determined on the basis of the second predetermined regulation.

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18. (Original) Method as claimed by claim 15, in which in case of a code word of the first set, which starts at a raster point is not finished at the end of the segment, the read section of the code word is stored, and the remainder of the code word is determined on the basis of a first predetermined regulation which was used when producing the data stream, the first predetermined regulation being as follows:

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for each stored section of a read code word, jumping to the next raster point in the data stream which remains after step a1) in order to determine the remainder of the code word;

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in case a code word can be read to the end, connecting the code word which has been read to the end with the stored section in order to obtain the code word of the first set completely, otherwise storing a section which may have been read and repeating the step of jumping to the next raster point, until all code words of the first set are present.

19. (Original) Method as claimed by claim 1, in which there are as many code words in the first set of code words as there are segments in the data stream, and in which the number of code words in the other set or sets is equal to or smaller than the number of code words in the first set, such that all code words of the first set are written to raster points.

20. (Currently Amended) Apparatus for producing a data stream of code words of variable lengths which are divided up into a plurality of sets of code words, ~~wherein the code words of variable lengths represent encoded information symbols,~~ wherein a raster having raster points is present for the data stream, in which two adjacent raster points define a segment, the raster comprises a plurality of segments, the apparatus comprising:

an encoder for encoding an audio signal to generate the code words of variable lengths, the code words of variable lengths representing the audio signal;

a) a device for writing the code words of the first set such that starts of code words are present at raster points of different segments; and

b) a device for writing each code word of the second set into a segment which is assigned to each individual code word pursuant to a predetermined assignment rule, wherein each code word of the second set is assigned a different segment pursuant to the predetermined assignment rule, in case the respective code word fits in the segment, wherein the device is arranged so as

in case only part of the respective code word fits in the assigned segment or in case the assigned segment is full, to write the part of the respective code word of the second set into the assigned segment and to store the

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remainder of the code word (7b) or, in case the assigned segment is full, storing the entire code word which is assigned the full segment;

to write the stored remainder and the stored entire code word, which did not fit in the respective segments in steps b1), b2), into an area of the raster which is not written onto after steps b1) and b), pursuant to a second predetermined regulation, until all code words of the second set have been written into the raster.

21. (Currently Amended) Apparatus for reading a data stream of code words of variable lengths, the code words of variable lengths representing an encoded audio signal, in which the data stream comprises code words of a plurality of sets of code words, ~~wherein the code words of variable lengths represent encoded information symbols~~, wherein, for the data stream, a raster is specified which comprises raster points, wherein two adjacent raster points define a segment, wherein the data stream comprises at least two segments, which apparatus comprises the following:

a) a device for extracting the code words of the first set from the data stream, which is arranged so as to

for each segment, to jump to a raster point and to read a code word starting there; and

b) a device for extracting the code words of the second set of code words from the data stream which remains after step a), which is arranged so as

to jump, for each remaining segment, to a raster point of the segment on the basis of a predetermined assignment rule which was used when producing the data stream and to read the code word starting there in order to obtain the code words of the second set,

in case a code word of the second set is not finished at the end of a corresponding segment, to store the read section of the code word of the second set;

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to determine the remainder of the code word or the code word not present at a raster point on the basis of a second predetermined regulation which was used when producing the data stream; and

5 a decoder for decoding the code words of variable lengths to obtain a decoded audio signal.

22. (Original) Method as claimed in claim 1, in which, in case of a code word of the first set which is longer than a segment, the remainder of the code words is
10 written into an area of the raster which is not written onto after step a1), pursuant to a first predetermined regulation, until all code words of the first set have been written into the raster.

23. (Original) Method as claimed in claim 15, in which in case of a code word of the first set, which starts at a raster point is not finished at the end of the segment,
15 the read section of the code word is stored, and the remainder of the code word is determined on the basis of a first predetermined regulation which was used when producing the data stream.

20 24. (Original) Apparatus as claimed in claim 20, in which the device for writing the first set of code words is operative,

25 in case a code word is longer than a segment, to write the remainder of the code word into an area of the raster which is not written onto after step a1), pursuant to a first predetermined regulation, until all code words of the first set have been written into the raster.

25. (Original) Apparatus as claimed in claim 21, in which the device for extracting the code words of the first set is operative,
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30 in case the code word starting at a raster point is not finished at the end of the segment, to store the read section of the code word; and

35 to determine the remainder of the code word on the basis of a first predetermined regulation which was used when producing the data stream.

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